CLAIMS

What is claimed is:

1.   A signal bearing medium tangibly embodying a program of machine-readable
instructions executable by a digital processing apparatus to perform operations for
processing network discovery data, the operations comprising:

    defining a plurality of network data aggregations;

    assigning a current state value to at least one of the data aggregations;

    for at least one current state value, determining if the current state value is
different than a corresponding prior state value; and

    merging data corresponding with at least one data aggregation determined to have
a current state value that is different than a corresponding prior state value, with prior
data corresponding with at least one data aggregation determined to have a current state
value that is not different than a corresponding prior state value.

2.   The signal bearing medium of claim 1, wherein the plurality of network data
aggregations are defined based on zoning information.

3.   The signal bearing medium of claim 1, wherein the plurality of network data
aggregations are defined based on topology information.

4.   The signal bearing medium of claim 1, wherein the plurality of network data
aggregations are defined based on device attributes information.

5.   The signal bearing medium of claim 1, wherein the operations further comprise
polling agents, to gather data for the at least one data aggregation to which a current state
value is to be assigned.

6. The signal bearing medium of claim 1, wherein the operations further comprise receiving notifications from agents, to gather data for the at least one data aggregation to which a current state value is to be assigned.

7. The signal bearing medium of claim 1, wherein the operations further comprise assigning an initial state value for each data aggregation.

8. The signal bearing medium of claim 1, wherein the operation of assigning a current state value to at least one of the data aggregations is performed by at least one agent discovery service.

9. The signal bearing medium of claim 1, wherein the operation of assigning a current state value to at least one of the data aggregations is performed by a management client.

10. The signal bearing medium of claim 1, wherein the operation of assigning a current state value to at least one of the data aggregations comprises processing data in the at least one of the data aggregations in a prescribed order.

11. The signal bearing medium of claim 1, wherein the operations further comprise, prior to the operation of assigning a current state value to at least one of the data aggregations, organizing data in the at least one of the data aggregations in a prescribed order.

12. The signal bearing medium of claim 1, wherein each current state value is a CRC value computed using data associated with a corresponding data aggregation, and a CRC polynomial.

13.   The signal bearing medium of claim 1, wherein each current state value is a checksum computed against data associated with a corresponding data aggregation.

14.   The signal bearing medium of claim 1, wherein the operations further comprise receiving data corresponding with at least one data aggregation wherein the current state value is different than a corresponding prior state value.

15.   The signal bearing medium of claim 1, wherein the operations further comprise receiving data corresponding with at least one data aggregation wherein the current state value is not different than a corresponding prior state value.

16.   The signal bearing medium of claim 1, wherein the operation of, for at least one current state value, determining if the current state value is different than a corresponding prior state value, is performed for each of a plurality of levels in a hierarchy of data aggregations.

17.   The signal bearing medium of claim 16, wherein the plurality of data aggregations includes at least one data aggregation that is a subset of a corresponding superset data aggregation, and wherein the subset data aggregation is located in the hierarchal ordering after the corresponding superset data aggregation.

18.   The signal bearing medium of claim 1, wherein the operations further comprise requesting polling on data aggregations that are subsets of a superset data aggregation that has a changed state value.

19.   A computing system, comprising:
        a memory; and

a processing device coupled to the memory, wherein the processing device is programmed to perform operations for processing network discovery data, the operations comprising:

defining a plurality of network data aggregations;

5   assigning a current state value to at least one of the data aggregations;

for at least one current state value, determining if the current state value is different than a corresponding prior state value; and

merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior

10   data corresponding with at least one data aggregation determined to have a current state value that is not different than a corresponding prior state value.

20.   The computing system of claim 19, further comprising at least one discovery agent coupled to the processing device.

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21.   The computing system of claim 19, wherein the operation of, for at least one current state value, determining if the current state value is different than a corresponding prior state value, is performed for each of a plurality of levels in a hierarchy of data aggregations.

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22.   The computing system of claim 19, wherein the operations further comprise, prior to the operation of assigning a current state value to at least one of the data aggregations, organizing data in the at least one of the data aggregations in a prescribed order.

25   23.   A computing system, comprising:

means for defining a plurality of network data aggregations;

means for assigning a current state value to at least one of the data aggregations;

for at least one current state value, means for determining if the current state value is different than a corresponding prior state value; and

means for merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one data aggregation determined to have a current state value that is not different than a corresponding prior state value.

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24. A method for obtaining network discovery data, the operations comprising:

defining a plurality of network data aggregations;

assigning a current state value to at least one of the data aggregations;

for at least one current state value, determining if the current state value is

10 different than a corresponding prior state value; and

merging data corresponding with at least one data aggregation determined to have a current state value that is different than a corresponding prior state value, with prior data corresponding with at least one data aggregation determined to have a current state value that is not different than a corresponding prior state value.

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25. The method of claim 24, wherein the operations further comprise, prior to the operation of assigning a current state value to at least one of the data aggregations, organizing data in the at least one of the data aggregations in a prescribed order.

20 26. The method of claim 24, wherein the operation of, for at least one current state value, determining if the current state value is different than a corresponding prior state value, is performed for each of a plurality of levels in a hierarchy of data aggregations.